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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/514,419	11/13/2004	Akimitsu Tsuda	JP02 0013 US	1241
24738 7590 01/24/2007 PHILIPS ELECTRONICS NORTH AMERICA CORPORATION INTELLECTUAL PROPERTY & STANDARDS 1109 MCKAY DRIVE, M/S-41SJ SAN JOSE, CA 95131			EXAMINER LOVELL, LEAH S	
			ART UNIT	PAPER NUMBER
			2885	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/24/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/514,419

Applicant(s)

TSUDA ET AL.

Examiner

Leah S. Lovell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,4-8 and 11-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-8 and 11-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 November 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. The Examiner would like to acknowledge the amendments to both the figures and specification and thank the Applicant for providing them. The objections to the drawings and figures are now overcome.
2. However, Applicant's arguments filed 2 November 2006 have been fully considered but they are not persuasive. Applicant provided no argument against claims 2-7 and 9-14. Taira effectively discloses the claimed invention as outlined below.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 4-8, and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taira (US 5,712,694) and in view of Geffcken et al. (US 2,748,659).

In regard to claim 1, Taira discloses a liquid crystal display device including a liquid crystal cell having a reflective member and a surface lighting device for supplying the light to said liquid crystal cell, said surface lighting device comprising:

a light guide [1506, figure 20] having a reflecting prism face [1506, 1509] and light emitting face [figure 20, across from reflecting prism face—can see "light beam" emitted through the face] opposed to said reflecting prism face, wherein the incident light is transmitted inside of said light

guide, the transmitted light is reflected on said reflecting prism face, and the reflected light is emitted from said light emitting face to said liquid crystal cell [figure 20];

light generating means [1501] for generating the light for emitting to said light guide;

light efficiency increasing means [1503] arranged between said light guide and said light generating means [figure 20], for increasing the efficiency of the light which is emitted from said light generating means to said light guide wherein said light efficiency increasing means comprising a reflective polarizer [1503] arranged adjacent an end portion of the light guide [figure 20; column 17, lines 52-53].

Taira discloses the claimed invention except said light efficiency increasing means having a retardation plate [1504] arranged between said reflective polarizer and said light generating means. Geffcken discloses a retardation plate [10] disposed between a light source [1] and polarizer [4]. It would have been obvious to one of ordinary skill in the art at the time of the invention to rearrange the retardation plate of Taira into a position like the retardation plate of Geffcken. One would have been motivated to arrange the retardation plate of Taira between the light source and reflective polarizers because the retardation plate rotates the vibration plane of the rays by 90°, which is desirable for the polarizer.

Regarding claim 8, Taira discloses a surface lighting device comprising:

a light guide [1506, figure 20] having a reflecting prism face [1506, 1509] and light emitting face [figure 20, across from reflecting prism face—

can see "light beam" emitted through the face] opposed to said reflecting prism face, wherein the incident light is transmitted inside of said light guide, the transmitted light is reflected on said reflecting prism face, and the reflected light is emitted from said light emitting face to said liquid crystal cell [figure 20];

light generating means [1501] for generating the light for emitting to said light guide;

light efficiency increasing means [1503] arranged between said light guide and said light generating means [figure 20], for increasing the efficiency of the light which is emitted from said light generating means to said light guide wherein said light efficiency increasing means comprising a reflective polarizer [1503] arranged adjacent an end portion of the light guide [figure 20; column 17, lines 52-53].

Taira discloses the claimed invention except said light efficiency increasing means having a retardation plate [1504] arranged between said reflective polarizer and said light generating means. Geffcken discloses a retardation plate [10] disposed between a light source [1] and polarizer [4]. It would have been obvious to one of ordinary skill in the art at the time of the invention to rearrange the retardation plate of Taira into a position like the retardation plate of Geffcken. One would have been motivated to arrange the retardation plate of Taira between the light source and reflective polarizers because the retardation plate rotates the vibration plane of the rays by 90°, which is desirable for the polarizer.

In regard to claims 4 and 11, Taika discloses said retardation plate is arranged such that the light reflected on said reflective polarizer changes to linearly polarized light of a polarization axis in said reflective polarizer [column 14, line 66-column 18, line 4].

In regard to claims 5 and 12, while Taika does not directly disclose a direction of said polarization axis is in parallel with a groove direction of said reflecting prism face in said light guide, the surface lighting device of Taika comprises all the essential working parts of the instant application. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made for the polarization axis to aligned in a direction parallel to the direction of the grooves of the reflecting prism. One would be motivated to do so to maximize the light transmitted into the light guide from the light source.

Regarding claims 6 and 13, Taira discloses said light generating means having a light source [101], and a light guide member [1001] for transmitting the light emitted from said light source to feed the end portion of said light guide, said light guide member having an anti-dispersion shape which reduces the dispersion of the incident light from the end portion of said light guide [figure 11A].

In regard to claims 7 and 14, Taira discloses said light guide having an anti-dispersion shape which reduces the dispersion of the incident light from the end portion of said light guide [figure 11A].

Regarding claims 3 and 10, Taira discloses the claimed invention except said light efficiency increasing means having a retardation plate [1504] arranged between said reflective polarizer and said light generating means. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to rearrange the

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retardation plate such that it lies between the light source and the reflective polarizer, since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japiske, 86 USPQ 70.


### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leah S. Lovell whose telephone number is (571) 272-2719. The examiner can normally be reached on Monday through Friday 7:45 a.m. until 4:15 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee Luebke can be reached on (571) 272-2009. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Leah Lovell, Examiner  
9 January 2007

  
ADRIAN CARIASO  
PRIMARY EXAMINER